

## COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN FOR LONG ISLAND SOUND

## **PUTTING THE PLAN IN MOTION**

1995 marked the first full year of implementation of the *Comprehensive Conservation and Management Plan for Long Island Sound*. The final plan was approved by EPA and the states of Connecticut and New York in September 1994. While EPA and the states continue efforts to plan for longer-term implementation needs, significant progress has been made towards putting the plan in motion. Some of the highlights are summarized below:

Eliminating Adverse Impacts of Low Dissolved Oxygen in the Sound: Low dissolved oxygen (hypoxia) has been identified as the most significant problem in LIS. A phased approach is being used to significantly reduce nitrogen inputs to the Sound to improve dissolved oxygen levels.

Phase 1 froze nitrogen loads from certain point sources at 1990 levels to prevent the hypoxia problem from getting worse.

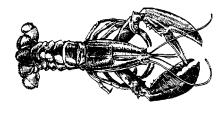
Phase 2 involved low-cost improvements at sewage treatment plants to begin to reduce the amount of nitrogen reaching the Sound.

<u>Actions</u>: All sewage treatment plants that are part of the "no net increase" agreement in Connecticut and Westchester, Nassau and Suffolk Counties in New York are in compliance with nitrogen limits.

◆Improvements currently underway will bring the four New York City plants discharging to the East River into compliance by January, 1997, as well as meeting their Phase II goals.

<u>Actions</u>: Nitrogen loads to the Sound are now 5,000 pounds per day below 1990 baseline levels, exceeding all expectations.

- ◆In Connecticut, retrofit projects have been completed at six sewage treatment plants, and are underway at five others, with completion expected by October 1996.
- ◆ Five additional plant retrofits are in the design and construction phase.
- ◆Connecticut currently has one complete denitrification plant on line, and plans are underway for another.
- ◆In New York, New York City plans to retrofit its four East River Plants by January 1997.
- ◆ Westchester County has implemented a retrofit at one of its facilities.
- ◆In both states, an increased share of nonpoint source pollution control funds have been targeted to projects that reduce nitrogen loads to the Sound.



Phase 3 is intended to achieve additional reductions in nitrogen loads necessary to meet the goals for dissolved oxygen in the Sound.

Controlling Major Sources of Pathogens: Pathogens can cause illness in people exposed through bathing in or consuming shellfish from contaminated waters. Pathogen contamination results in closed beaches and shellfish areas, hurting local economies and damaging public perception of the Sound.



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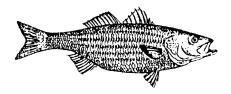
<u>Actions</u>: The LIS 3.0 computer model has been completed, and is being used to develop load reduction targets for eleven geographic management zones that have been identified around the Sound.

- ◆Newly developed indicators of the impacts of low dissolved oxygen on various species are being used to evaluate the effectiveness of different reduction strategies on living marine resources.
- ◆A process for nitrogen trading is being investigated as a potential tool to achieve nitrogen reduction in the most cost effective manner.
- ◆A series of public meetings will be scheduled during 1996 to review the targets and the range of options to meet those targets.

<u>Actions</u>: Phased combined sewer overflow (CSO) abatement projects are underway in both states to alleviate pathogen problems.

- ◆In Connecticut, projects have been funded in Bridgeport, New Haven, Norwich/Jewett City, Middletown and Hartford, to be completed over the next 20 years.
- ◆In New York, NYC has increased capture of CSO's from 18% to 40%, and is in almost complete compliance with EPA's minimum standards for CSO controls.
- ◆NYC's comprehensive sewer abatement program is scheduled for completion between 2001 and 2006.
- ◆Both states are working on programs to control discharges from vessels.
- ◆A "no discharge area" has been designated for Huntington/Lloyd Harbors, and Port Jefferson and Mamaroneck Harbors have been proposed for the designation.
- ◆Fifteen marinas in New York have received funds for construction of boat pump out facilities, and funds have been provided for construction of 17 new pumpout facilities in Connecticut, while seven others will be renovated.
- ◆Four municipalities in New York and one in Connecticut are actively working to address pathogen abatement through sanitary surveys or stormwater improvements.
- ◆Broader efforts underway in both states to address nonpoint sources of pollution and stormwater management will also contribute to the control of pathogens to the Sound.

Protecting the Sound from the Adverse Effects of Toxic Substances: Toxic substances can cause adverse human and ecosystem health risks.



Reducing Litter and Debris in the Sound: Trash floating in coastal waters can be a nuisance or hazard for boaters, can harm wildlife, and reduces our enjoyment of the Sound.



<u>Actions</u>: EPA and the states of Connecticut and New York are working together to update the <u>Interim Plan for Disposal of Dredged Materials in Long Island Sound</u>.

- ◆A Regional Environmental Monitoring and Assessment program, which examined the degree of degradation at 29 stations in Western LIS, has been completed.
- ◆Pollution prevention site assessments were completed at 33 manufacturing facilities in Connecticut and recommendations developed for each on how to reduce toxic discharges.
- ◆The state of Connecticut has funded research projects to evaluate toxic contaminants and develop management options. Specific projects include toxic contaminant dynamics in the Quinnipiac River Estuary, mercury dynamics in LIS, and decline of greater scaup due to toxic contaminants.
- ◆In New York City, an aggressive industrial pre-treatment program has reduced the amount of metals discharged by 1,000 pounds per day, and the City has implemented actions to trace and eliminate sources of organic pollution.
- ◆The City of Glen Cove, New York is assessing levels of toxics in Glen Cove Creek sediments.
- ◆Remediation of contaminated sediments has been completed at Jakobson's Shipyard in Oyster Bay, New York.
- ◆The New York Department of Environmental Conservation completed a PCB monitoring program for striped bass.
- ◆A toxicity survey of 20 harbors and embayments in the Sound has been completed and will be used to help formulate strategies for sediment management and remediation.

<u>Actions</u>: Efforts to control combined sewer overflows and improve stormwater management are helping to reduce the amount of litter that reaches the Sound.

- ◆New York City has reduced floatables by 70% by placing booms across tributaries and improving capture of combined sewer overflows.
- ◆During 1995, beach clean ups in New York involved nearly 900 people and resulted in the removal of over 7,000 pounds of trash from close to 30 miles of shoreline.

- ◆In Connecticut, clean ups involved over 700 people and resulted in the removal of over 4,000 pounds of trash from 23 miles of shoreline.
- ♦ Over 16,000 storm drains have been stenciled since 1991 with the message "Don't Dump-Drains to Long Island Sound".
- ◆In New York, over 3,000 drains have been stenciled with a bilingual "Clean Streets Clean Beaches" slogan (Spanish and English).

Actions: A bi-state habitat restoration planning process initiated during 1995 has resulted in the identification of nearly 200 sites that have been degraded and have potential to be restored.

- ◆ A Draft Habitat Restoration Plan and priorities will be completed during 1996 and made available for public review.
- ◆Fourteen restoration projects were completed under Connecticut's Tidal Wetlands Restoration and Coves and Embayments programs and several others were initiated.
- Restoration Fund, and habitat-related projects were supported under Connecticut's LIS Research Fund.

◆ Nearly \$1 million was awarded for 12 projects under a new River

- ◆The NYSDEC has two tidal restoration projects in progress and two in the planning process.
- ◆DEC has also completed a draft Habitat Action Plan for Oyster Bay/Cold Spring Harbor.

Information summarized from the US EPA, NYS DEC and CT DEP Implementation Status Report to the LISS CAC. Layout and design by Kimberly Zimmer, New York Sea Grant Extension Program for the Long Island Sound Study, March 1996.

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## **Restoring and Protecting**

**Habitat:** The overall abundance and diversity of habitats and living marine resources in the Sound has been diminished due to water quality problems, habitat degradation and loss, and land use impacts.

